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10/065,012	09/10/2002	Lawrence E. Thieben	IN-5596	5726

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EXAMINER

FEELY, MICHAEL J

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/065,012

**Applicant(s)**

THIEBEN, LAWRENCE E.

**Examiner**

Michael J. Feely

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 13-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Pending Claims***

Claims 13-21 are pending.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The rejection of claims 1-6 and 9-11 under 35 U.S.C. 103(a) as being unpatentable over Johnsen et al. (Pub. No.: US 2002/0054957) has been rendered moot by the cancellation of claims 1-12.

3. The rejection of claims 13-18 under 35 U.S.C. 103(a) as being unpatentable over Johnsen et al. (Pub. No.: US 2002/0054957) stands.

Regarding claims 13 and 14, Johnsen et al. disclose: (13) a method of forming a coating composition (Abstract; paragraph 0053), said composition comprising:

(a) a film-forming polymer comprising an epoxide polymer having an equivalent weight between 170-900, and comprising a glycidyl ether group (paragraphs 0033, 0096, 0121; *see also product data sheet for Epikote 235*);

(b) a mixture of crosslinking agents selected from a list of crosslinkers including a polyamide functional compound and a phenalkamine compound (paragraph 0033);

(c) one or more pigments (paragraph 0038); and

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(d) solvent present in an amount between 27 and 46% by weight (paragraphs 0040 and 0045 – *inherent overlap of ranges*), where weights are passed on total coating composition weight; and

(14) wherein the epoxide polymer comprises an epoxy-terminated polyglycidyl ether of bisphenol A (paragraphs 0033, 0096, 0121; *see also product data sheet for Epikote 235*).

Johnsen et al. do not explicitly disclose, “*a mixture of crosslinking agents wherein at least one crosslinking agent is a polyamide functional compound and at least one crosslinking agent is a phenalkamine compound;*” rather, they disclose, “Suitable curatives may comprise *one or more* of the following: an amine or amino functional polymer selected from the general classes of aliphatic amines and polyamines, *polyamides*, amidoamides, amidoamines, polyoxyalkylene amines, modified aryl-aliphatic amines, cycloaliphatic amines and polyamines, aromatic amines, Mannich bases, *phenalkamines*, amino functional silicones or silanes including epoxy adducts and ketimines thereof,” (paragraph 0033).

The list of materials provided by Johnsen et al. to form a blend is relatively small. Hence, it would be reasonable to expect that one skilled in the art would have chosen a blend of a phenalkamine and polyamide as an amine hardener blend in their coating composition.

Further regarding the mixture of crosslinking agents, Johnsen et al. do not explicitly disclose “at least 2% by weight” of the polyamide functional compound. However, a blend is generally provided in a 50:50 ratio. Evidence of this can be found in *paragraph 0119*, wherein a 50:50 blend of curing agents is used. In light of this analogous example, one of ordinary skill in the art would have been motivated to use this blending ratio in any of the obvious combinations set forth in *paragraph 0033*.

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Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a mixture of a phenalkamine and (at least 2% by weight) of polyamide in the composition of Johnsen et al. because Johnsen et al. disclose an amine hardener blend of phenalkamine and polyamide in their coating composition, along with an analogous example that uses a 50:50 blend of curing agents.

The teachings of Johnsen et al. do not explicitly disclose that the pigments are “*stabilized in dispersion by the phenalkamine compound*,” and “*wherein said pigment settling time is at least 4 hours at room temperature*.” However, it has been found that “Products of identical chemical composition can not have mutually exclusive properties.” A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). In light of this, it appears that the obvious embodiment of Johnsen et al., featuring a combination of a phenalkamine and polyamide, would have inherently provided a stabilization effect on the pigment in the coating composition, resulting in a pigment settling time of at least 4 hours at room temperature.

Regarding claims 15-18 and 21, the claim limitations provide specific quantities of phenalkamine and polyamide functional compound based on the total crosslinker weight. The following is a summary of these limitations:

<b><i>Claim Number</i></b>	<b><i>Phenalkamine %</i></b>	<b><i>Polyamide Functional Compound %</i></b>
Claims 15	2% to 98%	2% to 98%
Claims 16	40% to 98%	2% to 60%
Claims 17	50% to 98%	2% to 50%
Claims 18	40% to 60%	40% to 60%
Claims 21	40% to 98%	2% to 60%

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As discussed above, a blend is generally provided in a 50:50 ratio. Evidence of this can be found in *paragraph 0119*, wherein a 50:50 blend of curing agents is used. In light of this analogous example, one of ordinary skill in the art would have been motivated to use this blending ratio in any of the obvious combinations set forth in *paragraph 0033*.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the ratios of a phenalkamine to polyamide, as set forth in claims 3-6, 9, 15-18, and 21, in the composition of Johnsen et al. because Johnsen et al. disclose an amine hardener blend of phenalkamine and polyamide in their coating composition, along with an analogous example that uses a 50:50 blend of curing agents. Such a 50:50 blend would have satisfied all of the ranges set forth in claims 15-18 and 21.

4. The rejection of claims 7 and 8 under 35 U.S.C. 103(a) as being unpatentable over Johnsen et al. (Pub. No.: US 2002/0054957) in view of Osterhold et al. (US Pat. No. 5,906,864) has been rendered moot by the cancellation of claims 1-12.

5. The rejection of claims 19-21 under 35 U.S.C. 103(a) as being unpatentable over Johnsen et al. (Pub. No.: US 2002/0054957) in view of Osterhold et al. (US Pat. No. 5,906,864) stands.

Regarding claims 19-21, Johnsen et al. disclose the use of pigments, such as diketo pyrrolo-pyrrol, ferro pigments, fluorescent pigments, metallic pigments and flakes (*see paragraph 0038*); however, they do not explicitly disclose the use of pigments selected from the group consisting of: **(19 & 21)** metal oxide pigments, titanium dioxide, talcum, calcium carbonate, calcium metasilicate, calcium phosphate, calcium molybdate, calcium metaborate, barium sulfate, barium metaborate, zinc phosphate, zinc chromate, zinc nitrophthalate, zinc molybdate, zinc benzoate, aluminum zinc phosphate and aluminum triphosphate and mixtures thereof; and

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(20) zinc oxide pigments, titanium dioxide, iron oxide, talcum, calcium carbonate, calcium metasilicate, barium sulfate, zinc phosphate, zinc chromate, calcium phosphate, barium metaborate and mixtures thereof.

Osterhold et al. disclose an analogous epoxy-based composition featuring a blend of amine hardeners used to provide corrosion protection of metals. Osterhold et al. disclose, "The coating compositions according to the invention may contain conventional pigments and fillers, such as titanium oxide, barium sulphate, aluminum silicate, silicone dioxide, zinc phosphate, carbon black, colour-imparting and/or transparent organic and inorganic pigments, as well as conventional additives conventional in lacquers," (column 8, lines 41-47). The teachings of Osterhold et al. demonstrate that the pigments set forth in instant claims 7, 8, 19, and 20 are recognized in the art as suitable pigments that fall under the general description of suitable pigments set forth in Johnsen et al.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use any of the pigments set forth in claims 19-21, as taught by Osterhold et al., in the composition of Johnsen et al. because Osterhold et al. demonstrate that these pigments are recognized in the art as suitable pigments for epoxy-based coating compositions, resulting in colored coatings used to provide corrosion protection of metals.

### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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7. Claims 13-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation “*wherein said pigment settling time is at least 4 hours at room temperature*” is not supported by the Specification. Applicant points to Examples for support; however, the instant Specification does not feature a set of working examples.

#### ***Response to Arguments***

8. Applicant's arguments with respect to claims 13-21 have been considered but are moot in view of the new ground(s) of rejection. The claims contain new matter (*see rejection above*). Furthermore, it appears that the new matter limitation would have been inherently satisfied by the obvious embodiment of Johnsen et al. (*see rejection above*).

#### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,



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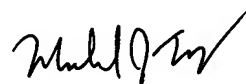
however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Communication***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Feely whose telephone number is 571-272-1086. The examiner can normally be reached on M-F 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael J. Feely  
Primary Examiner  
Art Unit 1712

March 3, 2006

**MICHAEL FEELY  
PRIMARY EXAMINER**